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ABSTRACT

This study compared cognitive, social, and affective progress of students in a multi-graded classroom and a single-graded classroom. Participating were teachers in kindergarten/first, first, and second grade classrooms and a random sample of their students at two suburban Virginia schools. Five teachers taught in single-graded classrooms and one teacher taught in a multi-graded kindergarten/first grade classroom. Assessment of student progress was comprised of: (1) a standardized literacy assessment; (2) teacher's ranking of students on literacy; and (3) teacher ratings of student social and affective skills within the school environment. The findings revealed no substantial differences between students in multi-graded and single-graded classrooms. (Two appendices contain data collection instruments. Contains 15 references.) (Author/KB)

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A Comparative Study

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A Comparative Study of Single-graded

Versus Multi-graded Classrooms

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Abstract

Educators are divided over the value of multi-graded classrooms. Many educators strongly believe that students should only remain in the same classroom for purposes of retention. Other educators believe that in the primary years having students remain in the same classroom environment for more than one year assists the child with all areas of development. This additional year of exposure to one primary instructor assists with mastery of content and increases familiarity and fluency with the educational process. However, some parents feel strongly that during the second year their child is a member of a multi-graded class, he/she will no longer be challenged. The purpose of this study is to address the concerns of educators and parents who believe the multi-graded classroom is detrimental to student development. We assessed students' development from a multi-graded classroom and a single-graded classroom. We compared them across three domains - cognitive, social and affective. Our research and findings show that there are no substantial differences between students in multi-graded classrooms and students in single-graded classrooms.

A Comparative Study of Single-graded Versus
Multi-graded Classrooms

Introduction

In recent years, there has been a surge across the country and abroad, in support of an alternative that addresses the depleting educational standards-- multi-graded classrooms. The philosophy behind multi-graded classrooms is characterized as embodying the true essence of education-- child centerdness. The multi-graded program resembles an individualized, differentiated educational program that uses flexible grouping practices as well as integration of content across various subjects.

Students remain in the same classroom with the same instructor for at least a two year period, versus a one year period in the traditional single graded classroom. This additional year of instruction is intended to better assist the students with mastery of crucial material, increasing curriculum expectations and standards of learning. The additional time the teachers have with the students is also intended to better enable the classroom teacher to more efficiently assess student progress. Once he/she has appropriately identified the students' academic standing, the teacher's ability to assist students who require additional instruction and further challenges across various domains will be greatly enhanced.

In order to revise the current educational dilemma, Cohen remarks:

Experts see ungraded units as a way to steer schools away from competitive and overly academic instruction in the early grades and toward methods grounded in hands on learning, play, and exploration. (p.73)

Vitto Perrone states, "...there has been growing recognition of the need to provide children with a very strong base, out of which they can move confidently into the upper grades" (Cohen, p. 73). These two authors have identified the role of multi-graded groupings as a means of improving the present education system and also as a means of preparing students for continued school success.

History of Multi-graded Classrooms

The presence of multi-graded classrooms as a teaching phenomena is not new. Fogarty, likens this type of academic setting to that of the very familiar "one room school house." She says of multiage/multi-graded classrooms, "It is the developmentally appropriate mixed-age classroom, reminiscent of that 'one room schoolhouse' of years gone by" (p.5). Pavan (1993) states:

We now know that the most natural learning environment for children calls for heterogeneous multi-age groupings, within which all sorts of homogeneous and heterogeneous subgroupings can be created as needed (Pavan, p. 36).

The "one-room school house" form of education was the most predominant system of education throughout the late nineteenth and early twentieth centuries. According to Miller (1991), in 1918, the one-room schoolhouse represented 70.8 percent of all public

schools in the United States (Miller, p. 109). This form of education was characterized by a teacher (usually female) who would instruct pupils of a wide age range. Each member of the group, regardless of age, was instructed by the same teacher in the same classroom. The teacher differentiated her instruction according to age and development. During this time there was no need for more than a one room school house, because of a lack of pupils, lack of teachers and space. But, the teaching strategies of that era have been transformed into our present day multi-graded teaching philosophy.

The vocabulary used to identify multi-graded classrooms is extensive. Some authors refer to this grouping as a mixed age grouping. Other experts refer to this grouping as nongraded, nongraded/continuous progress, and open education. Yet others refer to this grouping as dual-age, ungraded, family- grouped, continuous grading, or multi-age. All of these terms refer to the exact same concept - students of varying ages and abilities within the domain of one classroom setting. Students remain in the same setting for more than one year. Within this setting, students will be instructed according to their individual stage of development (cognitively, affectively/socially, physically) and their age.

Pavan explains (1992):

A nongraded school does not use grade level designations for students or classes. Progress is reported in terms of tasks completed and the manner of learning, not by grades or rating systems (Pavan, p. 63).

Bodish defines mixed-age or multi-age groupings in contrast to combination classes. He refers to combination classes as being

those "...in which two or more age groups are combined for administrative reasons, such as overcrowded conditions or small enrollments at one grade level" (Bodish, 1992, p. 35). Bodish continues by saying, "Where combination classes mix ages out of necessity, multi-age groupings do it for perceived benefits" (Bodish, p. 35).

A multi-graded program is viewed as the means whereby teachers appropriately and uncompromisingly meet the needs of their students. Pratt argues, "A teacher who works with the same group for two or more years is also in a better position to evaluate each youngster's cognitive progress" (Milburn, 1984, p.58). Good teachers already divide or group their students by ability; therefore, differentiating instruction and expectations. At present, the age ranges in most first grade classrooms is two years (ages 5-7), depending on date of admission and use of retention. Connell holds, "In most American schools today, by third grade most classroom rosters will reveal [an academic] spread of 3 years, not 12 months" (Connell, 1987, p. 15). The divisions inherent in the classroom are evident. Multi-graded classrooms simply encompass these divisions and differentiation in a more appropriate, beneficial, normal and natural manner.

Anderson (1993) asserts that authentic nongradedness/multi-gradedness should meet, or come close to meeting, the following criteria:

- 1) Replacement of labels associated with gradedness, like first grade and fifth grade, with group titles like "primary unit" that are more appropriate to the concept of continuous progress
- 2) Replacement of competitive-comparative evaluation systems (and the report cards associated with them) with assessment and reporting mechanisms that respect continuous individual progress and avoid comparison
- 3) All grouping to include at least two heterogeneous age cohorts
- 4) Group assembled for instructional purposes to be non-permanent, being dissolved and reconstituted as needed
- 5) Organization of the teaching staff into teams, with teachers having maximum opportunities to interact and collaborate
- 6) Development of a flexible interdisciplinary, whole-child-oriented curriculum, with grade normed books and tests used only as resources (is used at all)
- 7) Adoption of official policies consistent with nongradedness/multigradedness in the school and at the school board level, even where waivers of policy may be required (Anderson, p. 31).

Pavan's studies of non-gradedness/multi-gradedness have supported the implementation of this philosophy within the school system as a means of appropriately educating students. This form of education is in direct accordance with John Dewey's goal of "child centered learning." Pavan's studies have shown that "in terms of academic achievement and mental health, results favoring graded groups are rare" (Pavan, 1993, p.29). Multi-graded classrooms in some circumstances have proven to be more conducive to learning than single graded classrooms.

Bodish has addressed the benefits of multi-graded (age) groupings across a number of domains, particularly cognitive and affective/social development. He states (1992):

The wide range of competencies in a mixed-age group provides students with opportunities to develop relationships and friendships with others who match, complement, or supplement their own needs and styles. Mixed age grouping provide older students with leadership opportunities and younger children with opportunities for more complex pretended play than they initiate themselves (p. 38).

Pratt corroborates that "Multi-age grouping does tend to be associated with better self-concept and attitude towards school" (Pratt, 1986, p. 50). Bodish supports Pratt by stating that "mixed age grouping can be an effective strategy for dealing with [children's] different rates of development" (Bodish, 1992, p. 38). It is easy to see how this grouping would benefit students who may be developmentally behind his/her classmates. Mixed age/multi-graded classrooms have proven to be successful in realistic terms of child development.

Multi-grade Controversy

The controversy inherent in the multi-graded classroom philosophy is both internal and external. With multi-age classrooms, there have been concerns from parents, teachers, students, and other staff members. The concerns address student involvement, academic standards, and teacher training, among others.

In an attempt to minimize the controversy of implementing and having a successful multi-graded philosophy, preparation and communication are key elements. This preparation and communication begins with the principal. Woelfel suggests that a principal should be prepared to answer a number of inquiries in reference to multi-grade/dual-age classrooms. She suggests the

following questions be appropriately addressed in a timely manner:

What is a dual-age/multi-grade classroom?; Why do you need a dual-age/multi-grade classroom?; How is the teacher selected?; How are the students selected?; What kind of instructional program is offered?; How do parents react?; How do students react?; Are dual-age/multi-graded classes as successful as single-age/single-graded classes?; How can a principal know if a dual-age/multi-grade class is successful? (Anderson, 1993, p.31-32).

These questions are crucial to the proper development and efficiency of a multi-graded program.

The questions mentioned by Woelfel also introduce a number of controversies inherent in this philosophy. Some of the primary concerns are student success, school and teacher preparedness, and parental knowledge and evaluation. These factors often determine whether a multi-graded program will prove successful or unsuccessful.

Studies conducted by Pavan, et. al (1993) have supported the effectiveness of multi-graded programs on student success. This success has been codified in terms of student's cognitive, affective/social, and psycho-motor developments. Part of this controversy is in reference to the groups Pavan identifies as benefiting most from this program. Pavan reports:

It appears [that] a nongraded/multi-graded environment especially benefits boys, blacks, underachievers, and students from lower socioeconomic groups, with the benefits increasing the longer that children remain in that environment. (Anderson, 1993, p. 29)

A multi-graded program may benefit particular groups more than others (Anderson, 1993, p. 29). For a parent of a student who would be included in such groups, this program would appear to be a great asset. For parents of students who would not be

categorized in the in-group, this program would be less appealing.

Another issue of concern for parents relates to their child's development in a multi-graded class. Specifically, some parents feel strongly that during the second year their child is a member of a multi-graded class, he/she will no longer be challenged.

Bodish has identified this statement as representing a misconception of the multi-graded groupings. He states (1992):

Older children are as academically challenged in the top half of a mixed-age class as they would be in a single-age class when there is an equally demanding curriculum and individual attention to learning style and academic level. Additionally, when older children "teach" newly learned skills to younger classmates, they strengthen their own understanding of these skills (p. 37)

Parents are an important support system for any educational reform. It is critical that their concerns are appropriately addressed and that they have full understanding of the workings of this system. Schrenko asserts "In order for any system to work, parents must first understand and then support it" (Schrenko, p. 125). In order for parents to support this system, there must be viable avenues and programs to invite and include their participation. Schrenko states the following ways as means of parent participation: daily journals, monthly calendars, homework kits, student led conferences, and parent volunteers (Schrenko, p.125-126). Parents must remain active and involved for this philosophy of teaching to be effective.

There are numerous other parent concerns related to multi-graded groupings. Bodish (1992) identifies five possible areas of concern:

- 1) When the number of children in a mixed-age classroom is small, it may be difficult for same-age, same-sex children to develop friendships
- 2) There may be a tendency for teachers of mixed-age groups to provide fewer challenges for older children
- 3) Some younger children, especially if very competitive, may be frustrated by the perceived gap between their work and that of older students
- 4) A mixed-age class may encounter more difficulty in scheduling items for individual students to work with special teachers
- 5) Teachers must do more work in planning instruction for a wide age range of students (Bodish, p. 40).

These concerns directly relate to the concerns of parents, school administrators, and teachers.

Preparing a school and the teachers for the incorporation of this program is not a simple process. Anderson (1993) writes "launching a nongraded/multi-graded program is at least a two year process... To develop a mature and smooth-running operation, with an integrated, inter-disciplinary, and multi-dimensional curriculum may require an additional five years" (p. 32). Anderson and Pavan (1993) suggest the following for starting a successful multi-graded program:

- 1) take an inventory of staff basic beliefs and intuitions;
 - 2) teachers immerse themselves in the literature.
 - 3) allocating time for altering policies and procedures.
 - 4) providing appropriate staff development and training.
- (Anderson, p. 32)

As emphasized in Anderson and Pavan's suggestions, a multi-graded classroom requires a skillful and well-prepared teacher. With more than one grade in a classroom, teaching is more complex. There is a greater demand on the teacher emotionally and

cognitively. To keep the class moving and manageable, the teacher must be well prepared (Miller, p.9). According to Wragg, these are the same skills that teachers in single-grade, multilevel classrooms should be using. A good teacher is well prepared and able to teach all abilities within the classroom. However, multi-grade teachers are required to be skillful and well-prepared, so that their class is manageable. According to research, "students are harmed when the teacher fails to recognize the individual differences in a classroom. It is also apparent that teachers are harmed when they have not been adequately prepared to teach students with varying ages and abilities" (Miller, p. 7).

Miller (1991) identified six key variables affecting successful multi-grade teaching:

1. Classroom organization: arranging and organizing instructional resources and the physical environment in order to facilitate student learning, independence, and interdependence.
2. Classroom management and discipline: developing and implementing classroom schedules and routines that promote clear, predictable instructional patterns, especially those that enhance student responsibility for their own learning. Developing independence and interdependence is also stressed.
3. Instructional organization and curriculum: planning, developing and implementing instructional strategies and routines that allow for a maximum of cooperation and self-directed student learning based on diagnosed student needs. This also includes the effective use of time.
4. Instructional delivery and grouping: instructional methods that will improve the quality of instruction, including strategies for organizing group learning activities across and within grade levels, especially those that develop interdependence and cooperation among students.

5. Self-directed learning: developing skills and strategies in students that allow for a high level of independence and efficiency in learning individually or in combination with other students.

6. Peer tutoring: developing skills and routines whereby students serve as "teachers" to other students within and across different grade levels. (Miller, p. 8)

The classroom teacher invests time developing skills in students in order to enhance their ability to work independently. Students quickly learn how to work on their own. In order for students to learn to be self-directed learners, and become capable of solving their own problems, routines must be established early. These skills stress independence and efficiency in learning.

Many teaching methods are employed in a multi-graded classroom. Not only do students work independently, classroom structure requires them to work cooperatively. Grouping is a strategy employed in the classroom to meet teacher and student needs (Miller, p. 8). Groups allow students to work together to find answers. This frees the teacher to move about helping more than one student at a time. Whole-class instruction is also used by a multi-grade teacher, allowing the teacher to have contact with every student. However, according to Miller, "whole-class instruction in the effective multi-grade classroom differs from what one generally finds in a single grade classroom" (Miller, p. 8).

There have been a number of studies of multi-graded groupings conducted in recent years. Milburn (1984) conducted a comparison study conducted in Canada between a traditional single-graded grouping and a non-traditional multi-grade grouping. He compared these students on cognitive as well as affective/social

parameters. His results were as follows:

I found little difference in basic skills achievement levels between youngsters in multi-age and traditional grade-level groups. Multi-age classes did score significantly higher on the vocabulary section of the reading test, however. The performance of the youngest age group in each multi-age class is of particular interest. In all cases these children scored higher on basic skills tests than did age-mates in the control school. The oldest student, by contrast, performed much like their counterparts in the control school. Children of all ages in the experimental school also had a more positive attitude towards school than did her counterparts in traditional grade-level groups (Milburn, p. 59).

It is evident from this study that multi-graded classrooms can be expected to have a definitive benefit over single-graded classrooms, across various domains. Our study compared a single-graded system with a multi-graded one.

Method

Participants

The participants in this comparative study were kindergarten/first, first, and second grade teachers at two schools in the Virginia area. The two elementary schools were located close together in the suburbs of central Virginia. These schools have comparable student populations and socioeconomic levels. One teacher taught in a multi-graded classrooms. The remaining five teachers taught in single-graded classrooms.

The data was collected from student records. These students were randomly selected from their class population. Five students from multi-graded classrooms and five students from single-graded classrooms were randomly selected from the kindergarten and first grade class populations. The ten second grade students were randomly selected from classrooms within the respective schools; but these students must have previously been taught by the teacher in the multi-graded kindergarten/first grade class or by the teacher in the single graded first grade class.

In order to appropriately use random sampling in our study, our population of students was necessarily small. The multi-graded kindergarten/first grade classroom, which was the basis for our comparison, was comprised of nineteen students (11 kindergarten students and 8 first grade students). As a result of this composition, our comparative sample of five students from each grouping was limited.

Design

This study used a comparative, between subjects design. Our theoretical null hypothesis was that there would be no difference between the cognitive and affective/social developments of students who are/were in a multi-grade kindergarten/first grade class and those who are/were in a single graded first grade class.

Materials

In this study we used two types of assessments. One type of assessment was a standardized assessment mandated by the respective county in which the schools were located. This assessment (Literacy Development Assessment) addressed various aspects of the student's cognitive level of development in regards to reading, writing, and spelling. Categories included concept of print, emergent storybook, letter recognition, concept of word, sight word recognition, reading stage, spelling stage, and writing. Teachers ranked randomly selected students from within their classroom population on these domains. (See Appendix A for Literacy Development Assessment and Descriptions of teacher's rating scales)

The second type of assessment was a teacher questionnaire. This assessment addressed the students' social and affective skills within their respective multi-graded or single-graded school environment. Teacher's evaluated students on a number of parameters (interaction with students of the opposite sex, off-task behaviors, ability to work independently, etc.) by rating their responses on a Likert scale model (Strongly disagree, disagree, undecided, agree, strongly agree). (See Appendix B for example of questionnaire on social/affective skills)

Procedure

For comparative purposes, we conducted two unobtrusive group observations of each classroom. We observed student population, student-student interaction, student-teacher interaction, classroom structure, classroom composition, student reading material, class routines, posted rules/guidelines, group/individual work, student behaviors, and teacher behaviors. All observations were conducted jointly and exclusively - the observers did not compare notes or discuss observations until after the observation was completed. These observations were also conducted on the same day at different times of the day.

From these observations it was apparent that the classroom structure, student composition, student interaction, student-teacher interaction, and student-student interaction were similar. At that time we concluded that it would be important to assess the cognitive as well as the affective/social aspects of the students. An accurate assessment of these factors would minimize confounds and increase the validity of our results.

The most efficient mode of study would be to compare the cognitive and affective/social developments of students in a multi-graded kindergarten/first grade classroom with those of students in a single-graded first grade class. We also decided to collect similar data from students in a single-graded kindergarten class and from students in single-graded second grade classrooms who had previously been taught in either the multi-graded kindergarten/first grade class or had previously been taught in the single-graded first grade class.

We proceeded to formulate packets of assessments to

distribute to the teachers. We decided to use a literacy development assessment which was mandated by the county. To assess the student social/affective skills, we referred to past studies which compared similar constructs. We attempted to use a standardized assessment of student social/affective skills but could not attain one which would be appropriate for our particular study. We wanted to make these assessments as brief as possible.

The teachers of these classes were each given a packet of papers which included a Literacy Development Assessment Data Sheet and a Teacher Evaluation of Student's Social and Affective Skills Questionnaire. We allowed the teacher's approximately one month in order to complete these assessments and evaluations. In order to increase efficiency and decrease confounds, teachers used evaluations and assessments from the beginning of the year assessments.

After all of our forms were gathered, we analyzed the data and reviewed our results in reference to our research and hypothesis.

Results

The results support our null hypothesis, which states there is no substantial difference in the cognitive development between the students in the multi-graded kindergarten/first grade class and those students in the single-graded kindergarten or first grade class. Likewise, the results support that there were no substantial differences between students who were previously taught in a multi-graded classroom and those students who were previously taught in a single-graded classroom.

Insert Table 1 about here

The results also show that there are no substantial differences in the social/affective skills of students who were taught in a multi-graded classroom and those students who were taught in a single-graded classroom. Finally, the results suggest that no substantial differences exist between students who were previously taught in the multi-graded kindergarten/first grade classroom and those students who were previously taught in the single-graded kindergarten or first grade classroom.

Insert Table 2 about here

Discussion

After reviewing our findings we have supported the hypothesis that there is no substantial difference between a multi-graded and a single-graded classroom on cognitive and social/affective measures. Many of these findings are in accordance with our research. Yet, some of these findings fail to support some research. In particular, Milburn's study (1984) which cited that students in multi-age groupings scored higher on vocabulary section of the assessment than students from single-graded groupings was not supported in our study. Likewise, there were no substantial differences between students of multi-graded classrooms and single-graded classrooms in terms of their

attitudes towards school.

The results of our study, comparing second grade students who were taught in a single-graded first grade classroom, with second grade students who were taught in a multi-graded kindergarten/first grade classroom, supported our hypothesis that there is no difference between these two groups on cognitive and social/affective developments. These results help dispel the misconceptions that being in a multi-graded class will have long term effects once students proceed to a single-graded classroom structure. Our research has shown that a multi-graded grouping does not delay development. Students perform equally as well in each grouping.

On the Literacy Development Assessment, there were a number of differences (not substantial) between the multi-graded kindergarten class and the single-graded kindergarten. The average score on the Concept of Word assessment was higher for the multi-graded kindergarten/first grade students. Yet, the first and second grade students in both class groupings average score was the same. Although an initial difference in these scores appears to be important, by the time these students reach first and second grade the difference has faded.

An additional difference between the single-graded and multi-graded classes, was found in the Literacy Development Assessment. The teachers in the single-graded kindergarten class did not assess students on Sight Word Recognition, Reading Stages, or Spelling Stages. However, the teachers in the multi-graded class did. We question if the multi-graded kindergarten/first grade students begin reading earlier. With a larger sample size, and a

focus on reading, future research could better identify this relationship. This research could also determine whether a difference in students' attitudes towards reading exists.

In this study we were not afforded the luxury of having a large sample of participants. However, our results are comparable with other research. Future studies should use a larger sample size. In addition, an evaluation of teaching skills used in the classroom could be incorporated into a study. By comparing the similarities and differences between teachers' skills and methods, the researchers may be able to identify the role that the teacher plays in student learning.

Our study of single-graded versus multi-graded classrooms has scraped the surface of this controversial educational issue. From here it is important to look at the skills required to teach in a multi-graded classroom and how these skills compare to what is required in a single-graded classroom.

The purpose of our study was to address the concerns of educators and parents who believe the multi-graded classroom is detrimental to student development. After reviewing our results and research, we feel confident that students in multi-graded classrooms are not disadvantaged by this grouping. They may actually have an advantage.

A multi-graded classroom requires teachers to get to know their students' abilities and differences. Multi-graded classroom teachers are forced to spend time developing organizational skills and patterns for their class. Teachers in a heterogeneous single-graded classroom should be equally proficient with classroom organization and just as knowledgeable of their students'

abilities. A skillful and organized teacher is necessary in all types of classrooms, but is required in a multi-graded one.

References

- Anderson, R.H. (1993) Nongradedness: Helping the Right Things to Happen to Kids, in Fogarty.
- Anderson, R. (1993). The Return of the Nongraded Classroom, in Fogarty.
- Bodish, R.(1992). The Pros and Cons of Mixed Age Grouping, in Fogarty.
- Cohen, D.L.(1993) A Look at Multiage Classrooms, in Fogarty.
- Connell, D.(1987). The First Thirty Years Were the Fairest: Notes from the Kindergarten and Ungraded Primary (K-1-2), in Fogarty.
- Fogarty, R. (1993). A Multiage Classroom: A Collection. Palatine, Illinois: Skylight Publishing, Inc.
- Milburn, D.(1984). A Study of Multi-Age or Family-Grouped Classrooms, in Fogarty.
- Miller, B.(1991). A Review of the Qualitative Research on Multigrade Instruction. ERIC Document.
- Miller, B. (1991). Teaching and Learning in the Multi-grade Classroom: Student Performance and Instructional Routines, in Fogarty.
- Nachbar, R. R. (1989) A K/1 Class Can Work Wonderfully, in Fogarty.
- Pavan, B.N.(1992). The Benefits of Nongraded Schools, in Fogarty.
- Pavan, B.N.(1992). Nongradedness: Not Simply a Grouping Scheme, in Fogarty.
- Pratt, D. (1986). On the Merits of Multiage Classrooms, in Fogarty.

Schrenko, L. (1993) Parents: An Essential Part of the Learning
Team, in Fogarty.

Woelfel, K.(1992). The Dual-Age Classroom: Questions and
Answers, in Fogarty.

Table 1

Literacy Development Assessment Data Summary

	Multi-K	Single-K	Multi-1	Single-1	Multi- 2	Single-2
Concepts of Print	11-16	11-16	11-16	11-16	11-16	11-16
Emergent Story Book	3.2	3.2	4	4	4	4
Letter Recognition	all	all	all	all	all	all
Concept of Word	3.6	1.4	4	4	4	4
Sight Word Recognition						
1-9 words	2	n/a		2		
10 -15 words	2	n/a		3		
16 -20 words	1	n/a	5		5	5
Reading Stages						
Early Emergent	3	n/a				
Late Emergent	2	n/a	1	2		
Beginner		n/a	2			
Advanced Beginner		n/a	1		3	3
Trans		n/a	1	3	1	1
Intermediate		n/a			1	1
Spelling Stages						
Letter Name	4	n/a	3	4	2	3
Within Word Pattern	1	n/a	2	1	2	1
Syllable Juncture					1	1
Holistic Score						
1	n/a	n/a	n/a	n/a		
2	n/a	n/a	n/a	n/a	2	3
2.5	n/a	n/a	n/a	n/a	1	1
3	n/a	n/a	n/a	n/a	2	1

Table 2**Teacher Evaluation of Student's Social and Affective Skills Survey**
Results

This is an example of the questionnaire the teachers responded on for each child in the sample. The scores below represent the average scores for the students from the multi-graded classroom (multi), and the students from the single graded classroom (single).

1. The student interacts with female students in the class?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	0	2	5	8
single	0	1	0	10	4

2. The student interacts with male students in the class?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	1	0	8	6
single	0	1	0	9	5

3. The student appropriately interacts with students in older grades?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	1	4	2	8
single	0	0	9	4	2

4. The student appropriately interacts with students in younger grades?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	0	3	5	7
single	0	0	11	2	2

5. The student appropriately interacts with students in his/her grade level?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	1	0	4	10
single	0	1	1	10	3

6. The student is often on-task?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	0	1	6	8
single	1	2	1	6	5

Table 2

Teacher Evaluation of Student's Social and Affective Skills Survey
Results

7. The student is often off-task?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	7	6	1	1	0
single	6	4	2	2	1

8. The student works well in groups?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	0	0	11	4
single	1	1	1	10	2

9. The student works well independently?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	1	0	8	6
single	0	5	1	5	4

10. The student works well during whole class instruction?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	1	0	8	6
single	1	3	1	7	3

11. The student follows class rules/guidelines?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	0	0	7	8
single	0	3	0	10	2

12. The student follows instructions?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	0	1	6	8
single	0	1	0	9	5

13. The student acts like a leader?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	3	1	6	5
single	2	5	2	3	3

Table 2**Teacher Evaluation of Student's Social and Affective Skills Survey
Results**

14. The student follows school routines?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	0	1	7	7
single	0	1	0	10	4

15. The student knows class routines?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	0	0	6	9
single	0	1	0	9	5

16. The student is frequently involved in arguments with other classmates?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	9	6	0	0	0
single	4	10	0	1	0

17. The student is frequently involved in physical confrontations?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	13	2	0	0	0
single	9	5	0	1	0

18. The student has a positive self image?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	0	2	5	8
single	0	1	3	9	2

19. The student is sensitive to the needs and feelings of others?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	0	3	4	8
single	0	4	2	6	3

20. The student frequently teases other classmates?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	12	3	0	0	0
single	9	5	0	1	0

Table 2

Teacher Evaluation of Student's Social and Affective Skills Survey

Results

21. The student is helpful to other classmates?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	0	1	5	9
single	0	1	0	11	2

22. The student frequently makes others off-task?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	5	7	2	1	0
single	4	8	1	1	1

23. The student cries frequently?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	10	4	0	0	1
single	10	4	0	0	1

24. The student frequently throws tantrums?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	10	4	0	1	0
single	12	2	0	1	0

25. The student laughs frequently?

	strongly disagree	disagree	undecided	agree	strongly agree
multi	0	0	1	5	9
single	0	0	1	9	5

LITERACY DEVELOPMENT ASSESSMENT DATA

Appendix A

Name: _____

Grade: _____

Date: _____ Date: _____ Date: _____ Date: _____ Date: _____

Teacher: _____

1. Concepts of Print: (0-5) (6-10) (11-16)

2. Emergent Storybook: 0 1 2 3 4

3. Letter Recognition: (0-10) (11-20) (21-41) (41-54)

4. CONCEPT OF WORD: 0 1 2 3 4

5. Sight Word Recognition: (1-9) (10-15) (16-20)

6. READING STAGE: (Word Recognition in Context)

Early Emerg. Late Emerg. Beg. Adv. Beg. Trans. Inter. Prof.

7. SPELLING STAGE:

Prelit. LN WWP Syl. J. Der. Con.

8. WRITING: Qualities (K-2nd)

Holistic Score (2nd-5th)

_____ writing has message	1	2	3	(3 pt. scale)
_____ recognizable words	1	2	3	4 (4 pt. scale)
_____ word phrases				
_____ simple sentences				
_____ several sentences in message				
_____ letters/punctuation carry no message				
_____ tells message, but it is not what is written				
_____ copies/writes/tells message				
_____ uses familiar sentence patterns				
_____ composes sentences independently				
_____ no directional pattern				
_____ some directional pattern				
_____ reversal of directional pattern				
_____ correct direction & spaces between words				
_____ arranges extensive text with minor difficulties				

Appendix A

The reader is referred to:

The Early Detection of Reading Difficulties
Third Edition, 1985

by Marie Clay

Heinemann Publishers
Auckland, New Zealand

for the Concepts about Print Test, Letter Identification Test, rating techniques for primary writing samples, tests of writing vocabulary and sentence dictation, and directions for taking a running record.

STRATEGIES FOR ATTACKING WORDS OUT OF CONTEXT

- 0 - Child has a limited sight vocabulary and is unable to decode unfamiliar words.
- 1 - Child has an acceptable sight vocabulary but is unable to decode unfamiliar words.
- 2 - Child has a limited sight vocabulary but is able to decode unfamiliar words given time.
- 3 - Child is able to recognize words by sight and decode unfamiliar words.

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Appendix A

Concept of Word Scoring Guide:

Points

- | | |
|---|-------|
| 0 - Child does not attempt to touch words as he says them--may slide finger across line in a rush. | _____ |
| 1 - Child points to individual letters as words. | _____ |
| 2 - Child starts pointing to words but gets out of synchrony with a two-syllable word or by omitting little words. | _____ |
| 3 - Child starts pointing to words but gets out of synchrony, then stops and starts again, or attempts to self-correct. | _____ |
| 4 - Child points to each word as he says it. | _____ |

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Appendix A

SIGHT WORD RECOGNITION

Have the student read the words in List 1. If s/he does not know the word by sight, give time for decoding. Use descriptions on the following page for scoring. Use Lists 2 and 3 for retesting.

LIST 1 PRACTICE WORD	LIST 2 PRACTICE WORD	LIST 3 PRACTICE WORD
can	in	see

and	the	pretty
has	down	where
after	let	here
am	there	over
little	did	what
them	one	like
could	yes	ran
it	said	her
find	we	they
live	away	are
no	put	look
do	who	then
play	again	give
saw	big	to
ride	him	for
you	this	may
in	at	with
some	make	eat
an	walk	red
now	from	have

Appendix A

[NOTE: Children in the early and late emergent reading stages are not able to pick up a book and read it independently without instruction. It is assumed that these children have seen and heard a pattern book many times before they are able to "read" the listed books independently.]

Early Emergent:

- identifies environmental print (symbols/logos, such as STOP signs, MacDonald's arches, etc.)
- becoming aware of the functions of print
- developing concepts of print
 - a. understanding the layout of books (front & back, top & bottom)
 - b. learning that print (not pictures) is what we read
 - c. learning directionality (in a book, on a page of print, on a line of print)
 - d. learning to identify letters
 - e. developing a concept of word
- developing a sense of story
- memorizes predictable pattern books

Books appropriate for early emergent readers are relatively short and have memorable, repetitive language patterns. The language (vocabulary, sentence structure, syntax) of these pattern books is similar to that used by young children. Simple and clear illustrations are present on each page and are cues to the message carried by the print on the page.

E	Maris	<u>My Book</u>
A	Hutchins	<u>One Hunter</u>
S	Carle	<u>Have You Seen My Cat?</u>
I	Wildsmith	<u>Cat on the Mat</u>
E	Wildsmith	<u>What a Tale</u>
R	Williams	<u>I Went Walking</u>
	Wildsmith	<u>All Fall Down</u>
	Martin	<u>Brown Bear, Brown Bear</u>
	Wright Group/Story Box	<u>Dan The Flying Man</u>
	Kalan	<u>Rain</u>
	Raffi	<u>Five Little Ducks</u>
	Berenstain	<u>Bears in the Night</u>
	Ginsburg	<u>The Chick and the Duckling</u>
	Peek	<u>Mary Wore Her Red Dress</u>
H	Berenstain	<u>Bears on Wheels</u>
A	Shaw	<u>It Looked Like Spilt Milk</u>
R	Petrie/Rookie Reader	<u>Hot Rod Harry</u>
D	Hill	<u>Where's Spot?</u>
E	Christelow	<u>Five Little Monkeys Jumping on the Bed</u>
R	Langstaff	<u>Oh a-Hunting We Will Go</u>

Appendix A

Late Emergent:

- has a concept of word
- points to words with finger (tracking)
- beginning to build a sight and meaning vocabulary
- uses picture and context clues (to identify words and to tell the story)
- "reads" predictable pattern books from memory

Books read by late emergent readers may have repetitive language patterns, but this is not their primary characteristic. Sentence lengths are longer than those in books on the early emergent list, and story events may carry over for two or more pages. Language structure is more complex and more varied. Some expressions may be unfamiliar to young children. Meaning may not be as easily illustrated; thus the child cannot depend upon the pictures to tell the story with certainty, as is possible in early emergent books.

Campbell
Asch
West
Ward
Ahlberg
Kraus
Mayer
Kraus
Wescott
Ziefert

Dear Zoo
Just Like Daddy
Pardon Said the Giraffe
Cookie's Week
Each Peach Pear Plum
Whose Mouse Are You?
Just Me and My Babysitter
The Carrot Seed
Peanut Butter and Jelly
A New House for Mole and Mouse

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Appendix A

Beginning Reader:

- using letter-sound relationships as a strategy in decoding text (without prompting)
- may read word-by-word without expression
- point to words with finger (tracking)
- uses knowledge of basic story structure
- developing strategies for reading unfamiliar, less-predictable pattern books

Books for the beginning reader provide fewer cues in their illustrations and repetition of words and phrases, and demand more sight vocabulary and decoding skills from the reader. Sentence patterns are more complex and varied. Illustrations have more detail than those in the easier pattern books, and thus add confusion for readers attempting to tell the story largely from pictures.

Bucknall
Jonas
Hutchins
Butler
Brown
Fox
Seuss
Seuss
Wood
Nodset

One Bear All Alone
When You Were a Baby
You'll Soon Grow into Them Titch
My Brown Bear Barney
Goodnight Moon
Hattie and the Fox
Green Eggs and Ham
Hop on Pop
The Napping House
Who Took the Farmer's Hat?

Appendix A

Advanced Beginning Reader:

- may continue to finger point or use other aids, such as index cards, to keep place
- building fluency and confidence
- reads with more expression
- uses multiple strategies to decode words: phonics, visual cues, meaning, context clues, sentence structure
- monitoring comprehension, self-correcting

Books for the advanced beginner are longer and have more fully-developed stories than books read by less advanced readers. Repetition is not usually a feature. Language is more likely to take on features peculiar to the written form rather than being limited to typical spoken language of young children, though most words will be in the child's speaking and listening vocabularies. There may be full pages of print, with no illustrations. Illustrations embellish the reading experience, but do not provide major cues for the reader.

Meyer
Minarik
Hutchins
Lobel
Seuss
Marshall
Lobel
Rylant
Slobodkina
Hogrogian

There's a Nightmare in My Closet
A Kiss for Little Bear
The Doorbell Rang
Mouse Soup
The Cat in the Hat
Three by the Sea
Frog and Toad Are Friends
Henry and Mudge and the Forever Sea
Caps for Sale
One Fine Day

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Appendix A

Transitional:

- expanding sight and meaning vocabulary
- moving into unfamiliar materials by use of predicting, confirming cross-checking, and self-monitoring
- beginning to be a fluent and expressive oral reader
- may read silently with ease
- reads easy chapter books with 90-95% word recognition

Transitional books may be called "easy chapter books." More than one sitting is usually required for a child to read the whole book. Stories become more complex, and ability to make inferences is often necessary to full enjoyment of the story. Transitional books utilize vocabulary of several hundred words, primarily of one- or two-syllables. The picture-to-print ratio is decreased; many pages may feature print only.

	Step into Reading Books, Level 2	
	Chenery	<u>Wolff</u>
E	Cole	<u>Bony Legs</u>
A	Marshall	Fox Series
S	Monjo	<u>The Drinking Gourd</u>
I	Parish	Amelia Bedelia Series
E	Parish	<u>The Cats' Burglar</u>
R	Roop	<u>Keep the Lights Burning Abbie</u>
	Ross	M & M Series
	Sharmat	Nate the Great Series
	First Stepping Stone Series	
	Adler	Cam Jansen Series
	Blume	<u>The One in the Middle Is the Green Kangaroo</u>
H		
A	Byars	<u>The Seven Treasure Hunts</u>
R	Dalgliesh	<u>The Bears on Hemlock Mountain</u>
D	Delton	Pee Wee Scouts Series
E	Giff	Kids at Polk Street School Series
R	Howe	Pinky and Rex Series
	Kline	Horrible Harry Series
	Sharmat	Kids on the Buss Series

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Appendix A

Intermediate and Proficient Readers

Most readers at the intermediate and proficient stages are ages eight and older. By this time in a reader's life, individual interests are more important as a determiner of a book's appropriateness than any other characteristic. Readers at the intermediate and proficient stages enjoy reading and rereading easy picture books, and are also willing to tackle books that challenge their reading abilities if the topic is one of great interest.

Intermediate Reader:

- applies a combination of strategies, including structural analysis, to determine word meanings
- mastering common plot structures; building an understanding of literary elements
- learning and using more sophisticated vocabulary
- beginning to draw inferences from books/stories read independently
- may pursue interests through reading
- reads smoothly orally and silently for a variety of purposes
- reads chapter books with 90-95% word recognition

Intermediate books are longer and have more difficult conceptual level and vocabulary than transitional books. Often written with eight- and nine-year olds in mind, many popular intermediate books feature characters, situations, and dialogue with which third- and fourth-graders identify. Chapters are somewhat complete in themselves, so that the book can be read in several sittings without compromising comprehension. A growing selection of informational books designed for young readers fits into the intermediate stage.

Blume
Brenner
Bulla
Dahl
Dalgliesh
Gannett
Gardiner
Kaufman

LeGuin
MacLachlan
Moore
Silverstein
Kinsey-Warnock

Freckle Juice
Beware! These Animals Are Poison!
A Lion to Guard Us
James and the Giant Peach
The Courage of Sarah Noble
My Father's Dragon
Stone Fox
Birds Are Flying: A Let's Read and Find Out Science Book
Catwings
Sarah Plain and Tall
I'll Meet You at the Cucumbers
Where the Sidewalk Ends
The Canada Geese Quilt

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Appendix A

Proficient Reader:

- tackles demanding texts
- increasing vocabulary through reading
- has established reading tastes in fiction and nonfiction
- reflects on reading
- extending knowledge of literary elements
- adjusts reading strategies to type of text

Books for proficient readers are distinguished from intermediate books by length and vocabulary and concept load. While most of the proficient level books that will be enjoyed by elementary school pupils are written with pre-adolescents and adolescents in mind, there is no upper limit to this category. Non-fiction is often a particular interest of proficient readers.

Alexander
Asimov
Burnett
Burnford
Fritz
Konigsburg

L'Engle
Lewis
Paterson
Paterson
Silverstein
Speare
Sperry
Tolkien
White

The Book of Three
How Did We Find Out about Outer Space?
The Secret Garden
The Incredible Journey
And Then What Happened, Paul Revere?
From the Mixed-up Files of Mrs. Basil E. Frankweiler
A Wrinkle in Time
The Lion, the Witch, and the Wardrobe
Bridge to Terabithia
Tuck Everlasting
Light in the Attic
The Sign of the Beaver
Call It Courage
The Hobbit
Stuart Little

Appendix A

EMERGENT STORYBOOK READING

Read the child The Great Big Enormous Turnip, Mr. Gumpy's Motorcar, or another "storybook" with definitive setting and plot. After the reading, ask the child to do what you have done.

Observe whether the child:

Attends to pictures:

- 0 - labels the pictures _____
- 1 - "tells about" the pictures
using oral language _____
- 2 - "tells" the story using
story language _____

Attends to print:

- 3 - refuses to read. Says, "I
don't know how to read."
or points to print but does
not attempt to read _____
- 4 - attempts to read _____

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Appendix A

ALBEMARLE COUNTY SCALE FOR HOLISTIC EVALUATION OF SECOND GRADE PAPERS

Score 1

little or no development of
main idea

repeated patterns
(simple listing)

no elaboration

no risk taking

limited vocabulary

few or no complete sentences

little or no paragraph
structure

no voice

basic words misspelled

Score 2

some development of main
idea/details

some sequence

some elaboration but general
listing of details

limited (beginning) risk
taking

some interesting words, little
variety

complete sentences, usually
choppy with little variety

some sense of paragraph
structure

some voice

Score 3

fluent

main idea with specific
details

clear sequence (beginning,
middle, end)

consistent elaboration

risk taking (humor, dialogue,
advanced GUM)

varied and/or advanced
vocabulary

varied sentence structure

some sense of paragraph
structure

clear voice

may show cause/effect,
comparison/contest

strong sense of story

creative

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45

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Developed by the Scoring Team for the Second Grade Writing Samples, 1988: Nadine Anderson, Janet Atwell, Carolyn Byers, Betty Coogan, Connie Gamble, Betsi Lohr, Kathy Mallory, Jeanine Rouleau, Th

Appendix B

Teacher Evaluation of Student's Social and Affective Skills

Teacher's Name _____

Student's Name (a made up name is fine as long as it is used consistently for all evaluations of the student) _____

Student's Age _____ Grade _____ Gender _____

Please circle the most appropriate response:

1. The student interacts with female students in the class?

strongly disagree disagree undecided agree strongly agree

2. The student interacts with male students in the class?

strongly disagree disagree undecided agree strongly agree

3. The student appropriately interacts with students in older grades?

strongly disagree disagree undecided agree strongly agree

4. The student appropriately interacts with students in younger grades?

strongly disagree disagree undecided agree strongly agree

5. The student appropriately interacts with students in his/her grade level?

strongly disagree disagree undecided agree strongly agree

6. The student is often on-task?

strongly disagree disagree undecided agree strongly agree

7. The student is often off-task?

strongly disagree disagree undecided agree strongly agree

Appendix B

8. The student works well in groups?

strongly disagree disagree undecided agree strongly agree

9. The student works well independently?

strongly disagree disagree undecided agree strongly agree

10. The student works well during whole class instruction?

strongly disagree disagree undecided agree strongly agree

11. The student follows class rules/guidelines?

strongly disagree disagree undecided agree strongly agree

12. The student follows instructions?

strongly disagree disagree undecided agree strongly agree

13. The student acts like a leader?

strongly disagree disagree undecided agree strongly agree

14. The student follows school routines?

strongly disagree disagree undecided agree strongly agree

15. The student knows class routines?

strongly disagree disagree undecided agree strongly agree

16. The student is frequently involved in arguments with other classmates?

strongly disagree disagree undecided agree strongly agree

Appendix B

17. The student is frequently involved in physical confrontations?

strongly disagree disagree undecided agree strongly agree

18. The student has a positive self image?

strongly disagree disagree undecided agree strongly agree

19. The student is sensitive to the needs and feelings of others?

strongly disagree disagree undecided agree strongly agree

20. The student frequently teases other classmates?

strongly disagree disagree undecided agree strongly agree

21. The student is helpful to other classmates?

strongly disagree disagree undecided agree strongly agree

22. The student frequently makes others off-task?

strongly disagree disagree undecided agree strongly agree

23. The student cries frequently?

strongly disagree disagree undecided agree strongly agree

24. The student frequently throws tantrums?

strongly disagree disagree undecided agree strongly agree

25. The student laughs frequently?

strongly disagree disagree undecided agree strongly agree